Amendments to the Specification:

Please amend paragraph 16 as follows:

[0016] Figure 1 is a perspective view of one embodiment of an apparatus 10 having a support 12 and an actuator 14 in accordance with the present invention. The support 12 includes a rigid, non-flexible portion 16, at least one pivotable arm portion, such as first and second pivotable arm portions 18 and 20 extending from the rigid portion 16, a pair of opposing surfaces 22 and 24 with one opposing surface 22, 24 on each pivotable arm portion 18, 20 for movement relative to one another, and a force transfer member 26 operably positioned between the first and second pivotable arm portions 18 and 20. Preferably, the support 12 is a unitary, integral, single-piece body. The actuator 14 is operably engaged between the rigid, non-flexible portion 16 and the force transfer member 26 to drive the force transfer member 26 linearly causing the first and second pivotable arm portions 18, 20 to pivot about corresponding axes and drive the opposing surfaces 22 and 24 apart or away from each other <u>with a loss of motion of less than 40%</u> in response to an electrical activation from a controller 28 in communication with the actuator 14.

Please amend paragraph 28 to read as follows:

[0028] Figure 5 is a second embodiment of the apparatus 10a with the force transfer member 26a having an alternative T-shape. The apparatus 10a includes a support 12a and an actuator 14a similar to that previously described for the other embodiments. The support 12a includes a rigid non-flexing portion 16a, at least one pivotable arm portion 18a, 20a extending from the rigid non-flexing portion 16a, a pair of opposing surfaces 22a, 24a with one opposing surface 22a, 24a on each pivotable arm portion 18a, 20a for movement relative to one another, and a force transfer member 26a operably positioned between the first and second pivotable arm portions 18a, 20a. Preferably, as with the other embodiments the entire support 12a is formed as a unitary, integral, single-piece body. The actuator 14a is operably engaged between the rigid portion 16a and the force transfer member 26a to drive the force transfer member 26a in linear motion away from the rigid web 30. Movement

of the force transfer member 26a pivots the first and second pivotable arm portions 18a, 20a about the living integral hinges 36a, 38a respectively. A controller (not shown) can be provided to operate the apparatus 10a. The controller can provide a charging voltage across a piezoelectric device to produce spatial displacement along a predetermined axis as previously described for the other embodiments. The rigid portion 16a of the apparatus 10a can include a C-shaped web 30a extending between a pair of rigid arm portions 32a, 34a. One pivotable arm portion 18a is pivotably connected via the living integral hinge 36a to one rigid non-flexing arm portion 32a, and the other pivotable arm portion 20a is pivotable connected via the living integral hinge 38a to the other rigid non-flexing arm portion 34a. The force transfer member 26a can include a seat surface 40a. The actuator 14a includes opposite ends 42a and 44a. The actuator 14a produces a controlled spatial displacement along the predetermined axis between opposite ends 42a and 44a in response to an electrical activation. One end 42a of the actuator 14a, such as a set or fixed end 42a, is disposed adjacent to the rigid web 30a. The other end 44a of the actuator 14a, such as a driving end 44a, is disposed adjacent to the seat surface 40a of the force transfer member 26a. When the actuator 14a is electrically activated, the set end 42a of the actuator 14a is held fixed by the rigid portion 16a, the driving end 44a of the actuator 14a drives the force transfer member 26a away or apart from the rigid portion 16a (i.e. to the right in Fig. 5), and the first and second pivotable arm portions 18a, 20a are pivoted about the living integral hinges 36a, 38a respectively, <u>with a loss of motion of less than 40%</u>. In this configuration, the forces transferred from the force transfer member 26a to the pivotable arm portions 18a, 20a are transmitted through force transfer webs or hinges 48a, 50a extending between the force transfer member 26a and the corresponding pivotable arm portions 18a, 20a. The line of force transfer is generally parallel to the predetermined axis of spatial expansion of the piezoelectric actuator 14a, and preferably perpendicular to the fulcrum axis or axis of rotation of the pivotable arm portions 18a, 20a about the corresponding living integral hinges 36a, 38a.

Please amend paragraph 29 to read as follows:

[0029] Figure 6 is a third embodiment of the apparatus 10b with an adjustable seat 52b supported by the rigid portion 16b with an adjustable support 54b. The apparatus 10b includes a support 12b and an actuator 14b similar to that previously described for the other embodiments. The support 12b includes a rigid non-flexing portion 16b, at least one pivotable arm portion 18b, 20b extending from the rigid non-flexing portion 16b, a pair of opposing surfaces 22b, 24b with one opposing surface 22b, 24b on each pivotable arm portion 18b, 20b for movement relative to one another, and a force transfer member 26b operably positioned between the first and second pivotable arm portions 18b, 20b. Preferably, as with the other embodiments the entire support 12b is formed as a unitary, integral, single-piece body. The actuator 14b is operably engaged between the rigid portion 16b and the force transfer member 26b to drive the force transfer member 26b in linear motion away from the rigid portion 16b. The rigid portion 16b supports with an adjustable support 54b an adjustable seat 52b having a complementary surface to the end 42b of the actuator 14b. The complementary surface of the adjustable seat 52b can be flat or shaped in any manner to support the actuator 14b in a position suitable for driving the force transfer member 26b in response to electrical actuation of the actuator 14b. Movement of the force transfer member 26b pivots the first and second pivotable arm portions 18b, 20b about the living integral hinges 36b, 38b respectively. A controller (not shown) can be provided to operate the apparatus 10b. The controller can provide a charging voltage across a piezoelectric device to produce spatial displacement along a predetermined axis as previously described for the other embodiments. The rigid portion 16b of the apparatus 10b can include a web 30b extending between a pair of rigid arm portions 32b, 34b. One pivotable arm portion 18b is pivotably connected via the living integral hinge 36b to one rigid arm portion 32b, and the other pivotable arm portion 20b is pivotable connected via the living integral hinge 38b to the other rigid arm portion 34b. The force transfer member 26b can include a seat surface 40b. The actuator 14b includes opposite ends 42b and 44b. The actuator 14b produces a controlled spatial displacement along the predetermined

axis between opposite ends 42b and 44b in response to an electrical activation. One end 42b of the actuator 14b, such as a set or fixed end 42b, is disposed adjacent to the rigid web 30b as shown in the previous embodiments, or supported by the adjustable seat 52b connected to the rigid web 30b. The other end 44b of the actuator 14b, such as a driving end 44b, is disposed adjacent to the seat surface 40b of the force transfer member 26b. When the actuator 14b is electrically activated, the set end 42b of the actuator 14b is held fixed by the adjustable seat 52b connected to the rigid portion 16b, the driving end 44b of the actuator 14b drives the force transfer member 26b away or apart from the rigid portion 16b (i.e. to the right in Fig. 6), and the first and second pivotable arm portions 18b, 20b are pivoted about the living integral hinges 36b, 38b respectively, <u>with a loss of motion of less than 40%</u>. In this configuration, the forces transferred from the force transfer member 26b to the pivotable arm portions 18b, 20b are transmitted through force transfer webs or hinges 48b, 50b extending between the force transfer member 26b and the corresponding pivotable arm portions 18b, 20b. The line of force transfer is generally parallel to the predetermined axis of spatial expansion of the piezoelectric actuator 14b, and preferably perpendicular to the fulcrum axis or axis of rotation of the pivotable arm portions 18b, 20b about the corresponding living integral hinges 36b, 38b. It should be recognized that the adjustable support 54b and complementary seat 52b illustrated in Figure 6 can be used in the other embodiments illustrated in Figures 1-5 without departing from the spirit and scope of the present invention.

Please amend paragraph 33 to read as follows:

[0033] The web is designed to provide a rigid structure for the actuator to push directly against, or indirectly against through the adjustable seat. Since the web constrains the actuator, the force transfer element, which is designed to move within the apparatus, is displaced by the expanding actuator. The force transfer element in turn is connected via integral hinges or webs, to the upper pivotable arm and the lower pivotable arm. The force transfer element is connected to the upper and lower arms with webs, and the integral hinges divide the pivotal arm portions from the rigid

arm portions of the support. Both rigid non-flexing arm portions serve as structural members integral with the rigid non-flexing web. The hinges are designed so that the force and displacement generated by the piezoelectric element travel through the force transfer element and are focused and applied extremely close to the fulcrum of the hinges. Therefore, the force transfer element transfers a substantial portion of the force and displacement of the expanding actuator to the pivotable arms through the webs. The apparatus is designed so that the expansion of the actuator causes the upper and lower pivotable arm portions to pivot outward about the integral hinges so that the face of one of the pivotable arm separates from the face of the other pivotable arm with a loss of motion of less than 40%. Deactuation of the actuator restores the spatial displacement of the force transfer element to the initial position along the predetermined axis. This in turn causes the overall structure of the support to revert to the initial or rest state.